

**6CG7****MEDIUM-MU TWIN TRIODE**

9-PIN MINIATURE TYPE

*With heater having controlled warm-up time***GENERAL DATA****Electrical:**

Heater, for Unipotential Cathodes:

| | | |
|----------------------------------|----------|-------|
| Voltage (AC or DC) | 6.3 | volts |
| Current | 0.6 ± 6% | amp |
| Warm-up time (Average) | 11 | sec |

Direct Interelectrode Capacitances (Each unit, approx.):⁰

| | | |
|--|-----|----|
| Grid to plate | 4 | μf |
| Grid to cathode, internal shield, and heater. | 2.3 | μf |
| Plate to cathode, internal shield, and heater. | 2.2 | μf |

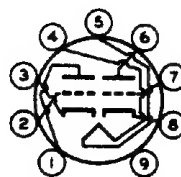
Characteristics, Class A₁ Amplifier (Each Unit):

| | | | |
|---|------|------|-------|
| Plate Voltage | 90 | 250 | volts |
| Grid Voltage | 0 | -8 | volts |
| Amplification Factor | 20 | 20 | |
| Plate Resistance (Approx.) | 6700 | 7700 | ohms |
| Transconductance | 3000 | 2600 | μmhos |
| Plate Current | 10 | 9 | ma |
| Plate Current for grid volts = -12.5. | - | 1.3 | ma |
| Grid Voltage (Approx.) for plate μa = 10 | -7 | -18 | volts |

Mechanical:

| | |
|---|--|
| Operating Position | Any |
| Maximum Overall Length | 2-5/8" |
| Maximum Seated Length | 2-3/8" |
| Length, Base Seat to Bulb Top (Excluding tip) | 2" ± 3/32" |
| Diameter | 0.750" to 0.875" |
| Dimensional Outline | See General Section |
| Bulb | T6-1/2 |
| Base | Small-Button Noval 9-Pin (JEDEC No.E9-1) |
| Basing Designation for BOTTOM VIEW | 9AJ |

Pin 1-Plate of
Unit No.2
Pin 2-Grid of
Unit No.2
Pin 3-Cathode of
Unit No.2
Pin 4-Heater
Pin 5-Heater



Pin 6-Plate of
Unit No.1
Pin 7-Grid of
Unit No.1
Pin 8-Cathode of
Unit No.1
Pin 9-Internal
Shield

AMPLIFIER — Class A₁
Values are for Each Unit

Maximum Ratings, Design-Maximum Values:

| | | |
|-------------------------------|----------|-------|
| PLATE VOLTAGE | 330 max. | volts |
| GRID VOLTAGE: | | |
| Positive-bias value | 0 max. | volts |

← Indicates a change.

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MEDIUM-MU TWIN TRIODE

| | | | |
|--|------------------|------|-------|
| CATHODE CURRENT | 22 | max. | ma |
| PLATE DISSIPATION: | | | |
| Either plate. | 4 | max. | watts |
| Both plates (Both units operating). | 5.7 | max. | watts |
| PEAK HEATER-CATHODE VOLTAGE: | | | |
| Heater negative with respect to cathode. | 200 | max. | volts |
| Heater positive with respect to cathode. | 200 [▲] | max. | volts |

Typical Operation as Resistance-Coupled Amplifier:

See RESISTANCE-COUPLED AMPLIFIER CHART No. 29
at front of this Section

Maximum Circuit Values:

| | | | |
|-----------------------------------|---|------|--------|
| Grid-Circuit Resistance: | | | |
| For fixed-bias operation. | 1 | max. | megohm |

HORIZONTAL-DEFLECTION OSCILLATOR

Values are for Each Unit

→ **Maximum Ratings, Design-Maximum Values:**

For operation in a 525-line, 30-frame system[□]

| | | | |
|--|------------------|------|-------|
| DC PLATE VOLTAGE. | 330 | max. | volts |
| PEAK NEGATIVE-PULSE GRID VOLTAGE. | 660 | max. | volts |
| CATHODE CURRENT: | | | |
| Peak. | 330 | max. | ma |
| DC. | 22 | max. | ma |
| PLATE DISSIPATION: | | | |
| Either plate. | 4 | max. | watts |
| Both plates (Both units operating). | 5.7 | max. | watts |
| PEAK HEATER-CATHODE VOLTAGE: | | | |
| Heater negative with respect to cathode. | 200 | max. | volts |
| Heater positive with respect to cathode. | 200 [▲] | max. | volts |

Maximum Circuit Values:

| | | | |
|-----------------------------------|-----|------|---------|
| Grid-Circuit Resistance | 2.2 | max. | megohms |
|-----------------------------------|-----|------|---------|

VERTICAL-DEFLECTION OSCILLATOR

Values are for Each Unit

→ **Maximum Ratings, Design-Maximum Values:**

For operation in a 525-line, 30-frame system[□]

| | | | |
|---|-----|------|-------|
| DC PLATE VOLTAGE. | 330 | max. | volts |
| PEAK NEGATIVE-PULSE GRID VOLTAGE. | 440 | max. | volts |
| CATHODE CURRENT: | | | |
| Peak. | 77 | max. | ma |
| DC. | 22 | max. | ma |

→ Indicates a change.



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MEDIUM-MU TWIN TRIODE

PLATE DISSIPATION:

Either plate. 4 max. watts

Both plates (Both units operating). . . 5.7 max. watts

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with
respect to cathode. 200 max. volts

Heater positive with
respect to cathode. 200[▲] max. volts

Maximum Circuit Values:

Grid-Circuit Resistance 2.2 max. megohms

○ Without external shield.

▲ The dc component must not exceed 100 volts.

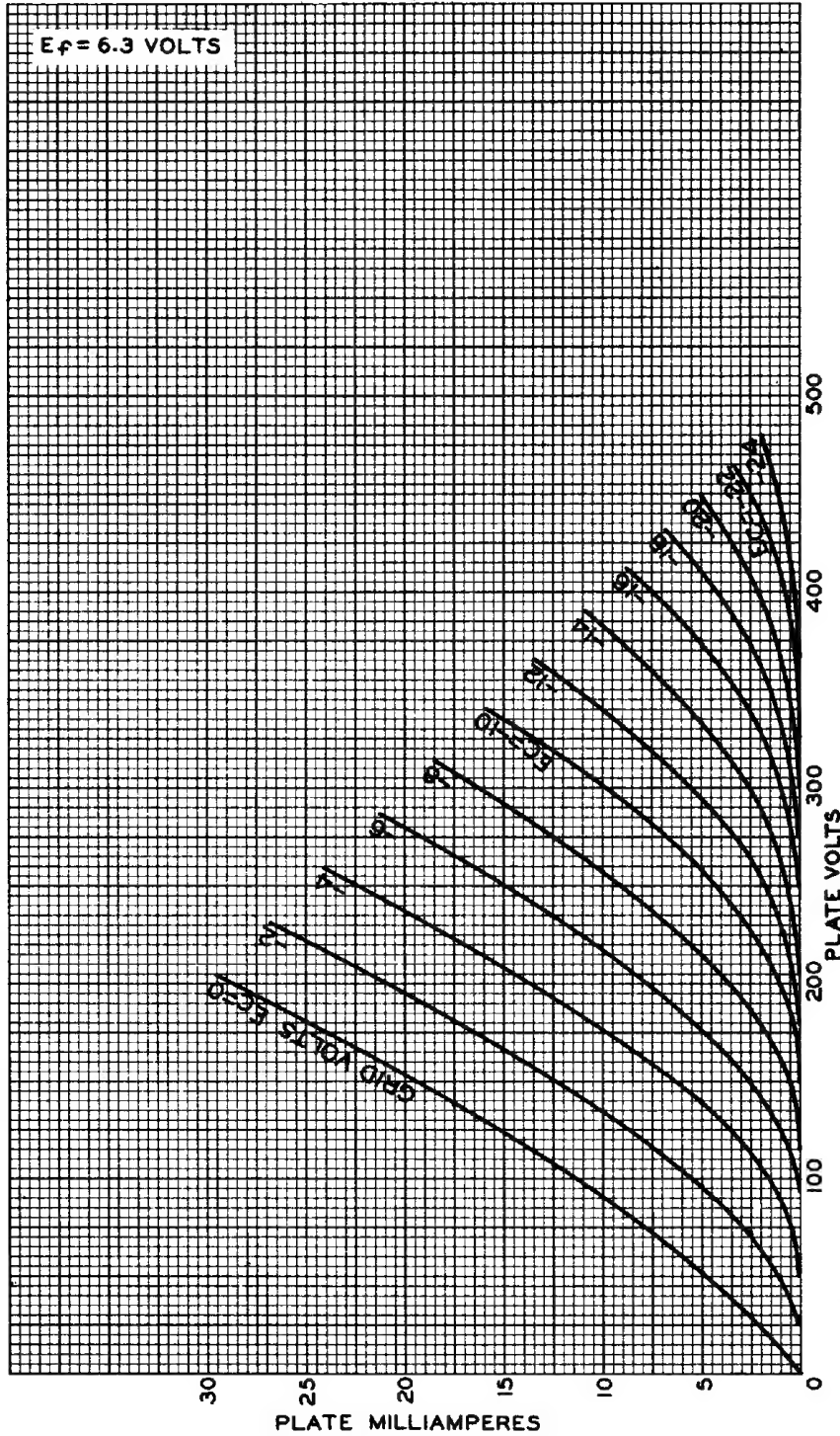
□ As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations," Federal Communications Commission.

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AVERAGE PLATE CHARACTERISTICS EACH UNIT

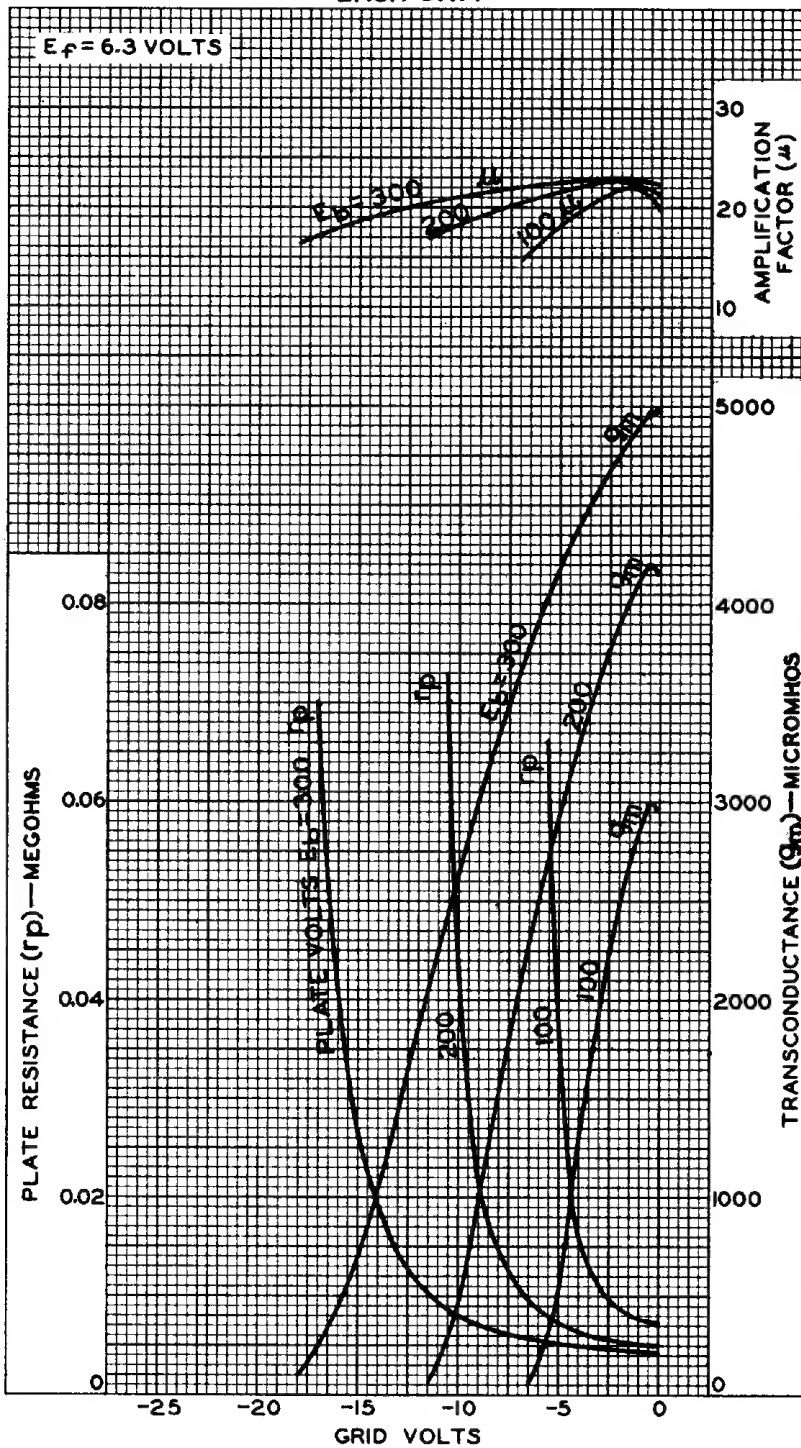




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AVERAGE CHARACTERISTICS EACH UNIT

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